

LAND RECLAMATION COMMISSION

STATE OF MISSOURI

P.O. BOX 176

JEFFERSON CITY, MISSOURI 65102

573-751-4041

Permit To Engage in Surface Mining

LAND RECLAMATION COMMISSION

ISSUES TO

MARTIN MARIETTA MATERIALS, INC.

Pursuant to "The Land Reclamation Act," RSMo, 2001, and on conformity with the statements

in the application, a permit is hereby granted to engage in surface mining of
limestone in the state of Missouri. The extent of the

Proposed mining operation(s) will be on 334 acres, more or less.

The locations of the operation(s) under this permit is/are as follows: **Renewal**

County	Section	Township	Range	Acres Renewed	Acres New	Total Acres	Site/Stream Name	Site Number
Cape Girardeau	04	33N	12E	40	0	40	Appleton	0101
Carter	04	27N	01E	45	0	45	Van Buren	0102
Perry	19	36N	11E	161	0	161	Perryville	0099
Jefferson	32	42N	06E	88	0	88	Barnhart	0100

This permit may be suspended or revoked upon violation of any or all of the conditions set forth in "The Land Reclamation Act," RSMo. 2001, or in such rules and regulations as are promulgated pursuant thereto by the Land Reclamation Commission.

IN WITNESS WHEREOF I have hereunto set my hand this 4th day of March 2004



DIRECTOR OF STAFF
Land Reclamation Commission

Permit No. 0067

Effective Date 03/04/2004

Expiration Date 02/28/2005

MO 780-1122 (6-95)

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FEB 17 2004



MISSOURI DEPARTMENT OF NATURAL RESOURCES
LAND RECLAMATION COMMISSION

PERMIT RENEWAL FOR INDUSTRIAL MINERAL MINES

MISSOURI LAND RECLAMATION COMMISSION
P.O. BOX 176
JEFFERSON CITY, MO 65102-0176

NAME OF CORPORATION, COMPANY, PARTNERSHIP OR INDIVIDUAL Martin Marietta Materials, Inc.		DATE 1/12/2004	
ADDRESS 800 North Causeway Blvd., Suite 2A	CITY Mandeville	STATE LA	ZIP CODE 70448
CONTACT PERSON W. Thomas Sellers, Jr.		TELEPHONE NUMBER 985-674-2380	

FEES: COMPLETE SECTION I OR SECTION II

SECTION I. Fees: Open pit operators and those mining more than 5,000 tons of sand and/or gravel:

1. To compute the site fee complete the information below:

SITE NAME OR NUMBER (add a separate sheet for additional sites)	Mark each month that the site will be operated during the permit year	For sites operated less than six months per permit year pay \$150 For sites operated six months or more per permit year pay \$300
1. Appleton Quarry	Jan, Feb, Mar, Apr, May, Jun, Jul, Aug, Sep, Oct, Nov, Dec	\$ 300.00
2. Barnhart Quarry	Jan, Feb, Mar, Apr, May, Jun, Jul, Aug, Sep, Oct, Nov, Dec	\$ 300.00
3. Perryville Quarry	Jan, Feb, Mar, Apr, May, Jun, Jul, Aug, Sep, Oct, Nov, Dec	\$ 300.00
4. Van Buren Quarry	Jan, Feb, Mar, Apr, May, Jun, Jul, Aug, Sep, Oct, Nov, Dec	\$ 300.00
5.	Jan, Feb, Mar, Apr, May, Jun, Jul, Aug, Sep, Oct, Nov, Dec	\$
6.	Jan, Feb, Mar, Apr, May, Jun, Jul, Aug, Sep, Oct, Nov, Dec	\$
7.	Jan, Feb, Mar, Apr, May, Jun, Jul, Aug, Sep, Oct, Nov, Dec	\$
8.	Jan, Feb, Mar, Apr, May, Jun, Jul, Aug, Sep, Oct, Nov, Dec	\$
9.	Jan, Feb, Mar, Apr, May, Jun, Jul, Aug, Sep, Oct, Nov, Dec	\$
10.	Jan, Feb, Mar, Apr, May, Jun, Jul, Aug, Sep, Oct, Nov, Dec	\$
TOTAL SITE FEE		\$ 1,200.00

2. Acreage Fee \$5 X _____ number of acres bonded \$ 1,670.00

3. Annual Permit Fee \$ 500

4. Total Fee (Add totals from 1, 2 and 3) \$ 3,370.00

NOTE: If Total Fee exceeds \$2,500.00 then pay only \$ 2,500

SECTION II. FEES: Sand or gravel operators mining less than 5,000 tons per year:

1. Annual Permit Fee \$ 300

SIGNATURE OF APPLICANT <i>[Signature]</i>	TITLE Southeast President, Division	DATE 1/12/2004
Appeared before me this <u>12th</u> day of <u>January</u> , 20 <u>04</u> , to <u>MICHAEL PERTSCH</u> to me personally known, who executed the above as their free acts and deeds.		

NOTARY PUBLIC EMBOSSEER SEAL	STATE OF LOUISIANA	COUNTY (OR CITY OF ST. LOUIS) ST. TAMMANY PARISH
	SUBSCRIBED AND SWORN BEFORE ME, THIS 12th DAY OF JANUARY YEAR 2004	USE RUBBER STAMP IN CLEAR AREA BELOW.
	NOTARY PUBLIC SIGNATURE <i>[Signature]</i> NOTARY PUBLIC NAME (TYPED OR PRINTED) WALTER M. BABST	MY COMMISSION EXPIRES AT DEATH WALTER M. BABST NOTARY, PUBLIC

FOR DEPARTMENT USE ONLY: APPROVED BY <i>[Signature]</i>	DATE APPROVED 3-2-04	PERMIT NUMBER 0017	EXPIRATION DATE 2-28-05
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MISSOURI DEPARTMENT OF NATURAL RESOURCES
LAND RECLAMATION COMMISSION
SITE INFORMATION FORM

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To be completed for each separate area of disturbance with mining operations		
SITE NAME OR NUMBER Appleton Quarry		MISSOURI LAND RECLAMATION COMMISSION PERMIT NUMBER 67
COMPANY NAME Martin Marietta Materials, Inc.		
COUNTY Cape Girardeau	1/4 SECTION	SECTION(S) 4
TOWNSHIP T33N	RANGE R12E	ACRES 80
RIVER OR STREAM NAME (FOR IN-STREAM ACRES) N/A		
MINERAL COMMODITY Limestone		ESTIMATED TONS/YEAR (FOR GRAVEL SITES) N/A

NAME OF LANDOWNER (ATTACH LIST IF MORE THAN ONE) Hurst Family Partnership, Inc.		
ADDRESS P. O. Box 151		
CITY Perryville	STATE MO	ZIP CODE 63775
SOURCE OF RIGHT TO MINE (CHECK ONE) <input type="checkbox"/> MINERAL DEED <input type="checkbox"/> WARRANTY DEED <input type="checkbox"/> OTHER (DESCRIBE): _____		DATE OF AGREEMENT 2/25/97
<input checked="" type="checkbox"/> LEASE		<input type="checkbox"/> VERBAL AGREEMENT

MINERAL RIGHTS OWNER (ATTACH LIST IF MORE THAN ONE) Same As Above		
ADDRESS		
CITY	STATE	ZIP CODE
SOURCE OF RIGHT TO MINE (CHECK ONE) <input type="checkbox"/> MINERAL DEED <input type="checkbox"/> WARRANTY DEED <input type="checkbox"/> OTHER (DESCRIBE): _____		DATE OF AGREEMENT
<input type="checkbox"/> LEASE		<input type="checkbox"/> VERBAL AGREEMENT
NOTE: Each site must be shown on a map and be included in a public notice and an approved mine plan.		

MISSOURI DEPARTMENT OF NATURAL RESOURCES
LAND RECLAMATION COMMISSION
MINE PLAN

MMA- Appleton Quarry
P.O. BOX 176
Jefferson City, MO 65102

TYPE OF PLAN (CHECK ONE)

☐ SHORT TERM, FOR ONE PERMIT YEAR

☒ LONG TERM, FOR PERIOD THROUGH DATE: **1/1/25**

DESCRIPTION OF SITE PRIOR TO LAND RECLAMATION COMMISSION PERMITTING (BY APPLICANT OR PRIOR OPERATOR), INCLUDING SOIL, VEGETATION AND TOPOGRAPHY.

*Area is primarily rolling hills covered with vegetation consisting of trees, shrubs, and grasses. According to the local county Soil Survey, the predominant soil classification in this area is Pits/Quarry. Only a small area on the extreme southwest end of the property has any overburden remaining. All available vegetation supporting material will be retained for reclamation purposes. Only a minimum amount, if any topsoil thus topsoil will not be segregated and stored separately
Total overburden (material above mineral) varies from 5'
15'.*

OPERATION PLAN - 10 CSR 40-10.020(2)(D)1.

A. TOPSOIL

AVERAGE DEPTH OF TOPSOIL, PRIOR TO LAND RECLAMATION COMMISSION PERMITTING

Minimal < 6"

IS TOPSOIL TO BE SOLD OR DISCARDED OFFSITE?

☐ YES OR ☒ NO

DESCRIBE METHODS AND EQUIPMENT USED FOR TOPSOIL REMOVAL

Post 1990 Areas of Disturbance:

All Topsoil (A) and Subsoil (B) material will be removed using scrapers, dozers, and/or other earth moving equipment as deemed necessary by permittee.

Topsoil (A) and Subsoil (B) material may be placed over graded spoil/overburden from previous cut.

OR

Topsoil (A) and Subsoil (B) material may also be stockpiled for future reclamation.

Topsoil (A) and Subsoil (B) removal operations will be conducted in such a manner as to minimize erosion

Pre 1990 Areas of Disturbance:

Topsoil regulations do not apply.

DESCRIBE METHODS AND EQUIPMENT USED FOR TOPSOIL STORAGE AND PROTECTION

Post 1990 Areas of Disturbance:

Topsoil (A) and Subsoil (B) material that is to be stockpiled, will be placed by scrapers, dozers and/or other earth moving equipment as deemed necessary by permittee.

Topsoil (A) and Subsoil (B) storage operations will be conducted in such a manner as to minimize erosion

Pre 1990 Areas of Disturbance:

Topsoil regulations do not apply.

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B. SPOIL

DESCRIBE METHODS AND LOCATION OF SPOIL PLACEMENT AND DISPOSAL

Overburden removed from above the mineral deposit will be either returned to the previously mined areas of the pit or to other bonded areas.

Post 1990 Areas of Disturbance:

Overburden material will be sloped, as required by the regulations in place at time of original disturbance, prior to topsoil replacement.

Pre 1990 Areas of Disturbance:

Overburden material will be sloped as required by the regulations in place at time of original disturbance.

Slopes will generally be traversable by standard farm equipment depending upon final use.

Pre 1972 Areas of Disturbance (Pre-Law)

Areas designated as Pre 1972 are exempt from Land Reclamation Laws and Regulations.

C. ACID MATERIALS

DESCRIBE METHODS AND EQUIPMENT USED FOR HANDLING ACID MATERIALS (IF NONE ANTICIPATED, WRITE "NONE" BELOW)

Layer(s) of shale may be slightly acidic.

If acidic shale material is present, material will be covered by non-acidic overburden materials to a minimum depth of 2'.

PIT INFORMATION (GIVE ALL DIMENSIONS IN FEET)

DESCRIBE LOCATION AND ORIENTATION OF PIT, IF NOT CLEAR ON SITE MAPS

Please see map(s)

YES**NO**☐☒

Will any excavation be at or within fifty feet (50) of the right-of-way of any public road?

☐☒

Will any highwall consisting of unconsolidated materials be left within fifty feet of the right-of-way of any public road? (NOTE: For unconsolidated materials left in place, a slope of no more than forty degrees may start near the right-of-way, and in no case may the excavation be closer to the right-of-way than fifty feet or twenty-five plus one and one-half (1-1/2) times the depth of unconsolidated material, whichever is greater, unless a variance is granted by the Commission.)

☐☒

Will any excavation start at or within fifty feet (50') of any property line?
(NOTE: If the answer is "yes", a safety barrier may be needed.)

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RECLAMATION COMMISSION

A. REVEGETATION (Attach additional sheets, if needed)

REVEGETATION MIX #	PURPOSE OR LAND USE	B. SEEDING OR PLANTING TIME
1	Agricultural	March - June August - October

DESCRIBE METHODS AND EQUIPMENT TO BE USED FOR SEEDING OR PLANTING

Post 1990 Areas of Disturbance:

After Topsoil / Subsoil replacement and grading are complete, soil will be worked with appropriate equipment, using recommended practices, to establish a seed bed.

Pre 1990 Areas of Disturbance:

After Overburden replacement and grading are complete, soil will be worked with appropriate equipment, using recommended practices, to establish a seed bed.

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Seeding will be accomplished by using either the most appropriate methods and seed mixes recommended by the local soil regulatory agency (if available) or by using successful past experiences to ensure proper germination.

Seeding methods may include one or any combination of the following: Broadcast, Drilling, Hydroseeding

Field adjustments of both quantity and species variety may be necessary to ensure adequate vegetation.

Revegetation mixes will include one or more of the grasses and one or more of the legumes listed below:

Lime and fertilizer will be applied according to recommendations, based upon an analysis of soil texture and nutrients. Mulch will be applied to all slopes exceeding 5:1.

Cool Season Grasses			Legumes		
Seeded Species	Pounds/Acre		Seeded Species	Pounds/Acre	
Tall Fescue	12	PLS (min)	Alfalfa	10	PLS (min)
Ryegrass	10	PLS (min)	Red Clover	5	PLS (min)
Bromegrass	8	PLS (min)	Lespedeza	10	PLS (min)
Orchardgrass	5	PLS (min)	Crownvetch	10	PLS (min)
Timothy	4	PLS (min)			

PLS = Pure Live Seed (min) = Minimum application rate if used

REVEGETATION MIX #	PURPOSE OR LAND USE	B. SEEDING OR PLANTING TIME
2	Wildlife	March - June August - October

DESCRIBE METHODS AND EQUIPMENT TO BE USED FOR SEEDING OR PLANTING

Post 1990 Areas of Disturbance:

Where necessary, and after Topsoil / Subsoil replacement and grading are complete, soil will be worked with appropriate equipment, using recommended practices, to establish a seed bed.

Pre 1990 Areas of Disturbance:

Where necessary, and after Overburden replacement and grading are complete, soil will be worked with appropriate equipment, using recommended practices, to establish a seed bed.

Seeding will be accomplished by either using the most appropriate methods and seed mixes recommended by the local soil regulatory agency (if available) or by using successful past experiences to ensure proper germination.

Seeding methods may include one or any combination of the following: Broadcast, Drilling, Hydroseeding

Field adjustments of both quantity and species variety may be necessary to ensure adequate vegetation.

Revegetation mixes will include one or more of the grasses and one or more of the legumes listed below:

Lime and fertilizer will be applied according to recommendations, based upon an analysis of soil texture and nutrients. Mulch will be applied to all slopes exceeding 5:1.

Warm Season Grasses			Legumes		
Seeded Species	Pounds/Acre		Seeded Species	Pounds/Acre	
Switchgrass	4	PLS (min)	Alfalfa	10	PLS (min)
Big Bluestem	7	PLS (min)	Red Clover	5	PLS (min)
Indian Grass	7	PLS (min)	Lespedeza	10	PLS (min)

PLS = Pure Live Seed (min) = Minimum application rate if used

ATTACH ADDITIONAL SHEETS FOR ADDITIONAL SEED MIXES.

A. REVEGETATION (Attach additional sheets, if needed)

REVEGETATION MIX #

3

PURPOSE OR LAND USE

Water Impoundments

B. SEEDING OR PLANTING TIME

March - June**August - October**

DESCRIBE METHODS AND EQUIPMENT TO BE USED FOR SEEDING OR PLANTING

Post 1990 Areas of Disturbance:

After Topsoil / Subsoil replacement and grading are complete, soil will be worked with appropriate equipment, using recommended practices, to establish a seed bed.

Pre 1990 Areas of Disturbance:

After Overburden replacement and grading are complete, soil will be worked with appropriate equipment, using recommended practices, to establish a seed bed.

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Seeding will be accomplished by using either the most appropriate methods and seed mixes recommended by the local soil regulatory agency (if available) or by using successful past experiences to ensure proper germination.

Seeding methods may include one or any combination of the following: Broadcast, Drilling, Hydroseeding

Field adjustments of both quantity and species variety may be necessary to ensure adequate vegetation.

Revegetation mixes will include one or more of the grasses and one or more of the legumes listed below:

Lime and fertilizer will be applied according to recommendations, based upon an analysis of soil texture and nutrients. Mulch will be applied to all slopes exceeding 5:1.

Cool Season Grasses			Warm Season Grasses		Legumes	
Seeded Species	Pounds/Acre		Seeded Species	Pounds/Acre	Seeded Species	Pounds/Acre
Tall Fescue	24	PLS (min)	Switchgrass	8 PLS (min)	Alfalfa	10 PLS (min)
Ryegrass	20	PLS (min)	Big Bluestem	14 PLS (min)	Red Clover	5 PLS (min)
Bromegrass	16	PLS (min)	Indian Grass	14 PLS (min)	Lespedeza	10 PLS (min)
Orchardgrass	5	PLS (min)				
Timothy	4	PLS (min)				

PLS = Pure Live Seed (min) = Minimum application rate if used

REVEGETATION MIX #

4

PURPOSE OR LAND USE

Industrial

B. SEEDING OR PLANTING TIME

March - June**August - October**

DESCRIBE METHODS AND EQUIPMENT TO BE USED FOR SEEDING OR PLANTING

Post 1990 Areas of Disturbance:

After Topsoil / Subsoil replacement and grading are complete, soil will be worked with appropriate equipment, using recommended practices, to establish a seed bed.

Pre 1990 Areas of Disturbance:

After Overburden replacement and grading are complete, soil will be worked with appropriate equipment, using recommended practices, to establish a seed bed.

Seeding will be accomplished by using either the most appropriate methods and seed mixes recommended by the local soil regulatory agency (if available) or by using successful past experiences to ensure proper germination.

Seeding methods may include one or all of the following: Broadcast, Drilling, Hydroseeding

Field adjustments of both quantity and species variety may be necessary to ensure adequate vegetation.

Revegetation mixes will include one or more of the grasses and one or more of the legumes listed below:

Lime and fertilizer will be applied according to recommendations, based upon an analysis of soil texture and nutrients. Mulch will be applied to all slopes exceeding 5:1.

Cool Season Grasses			Legumes	
Seeded Species	Pounds/Acre		Seeded Species	Pounds/Acre
Tall Fescue	12	PLS (min)	Alfalfa	20 PLS (min)
Ryegrass	10	PLS (min)	Red Clover	10 PLS (min)
Bromegrass	8	PLS (min)	Lespedeza	20 PLS (min)
Orchardgrass	5	PLS (min)	Crownvetch	20 PLS (min)
Timothy	4	PLS (min)		

PLS = Pure Live Seed (min) = Minimum application rate if used

ATTACH ADDITIONAL SHEETS FOR ADDITIONAL SEED MIXES.

B. GRADING

MMA- Appleton Quarry

DESCRIBE PROPOSED RECLAIMED TOPOGRAPHY, INCLUDING SLOPES

Agricultural Use:

All reclaimed areas will be graded so as to be traversable by standard farm equipment.
All reclaimed areas will be sown with appropriate revegetation mix and may include volunteer indigenous species which would support the intended use.

Wildlife Use:

All reclaimed areas will have a gradient suitable for wildlife.
Where necessary, reclaimed areas will be sown with appropriate revegetation mix and may include volunteer indigenous species which would support the intended use.

Water Impoundment:

All reclaimed areas will meet guidelines/regulations in effect at time of reclamation and established by the appropriate regulatory agencies.
Where necessary, reclaimed areas will be sown with appropriate revegetation mix and may include volunteer indigenous species which would support the intended use.

Industrial Use:

All reclaimed areas will be neat, orderly, and free of mining activity debris.
Where necessary, reclaimed areas will be sown with appropriate revegetation mix and may include volunteer indigenous species which would support the intended use.

Note: All final reclamation uses to meet guidelines/regulations in place at time of original disturbance.

Note: Final Reclamation Uses, size, location, and configuration can be influenced by a variety of factors including, but not limited to: depth of mineral extraction, variations in quality of mineral being mined, and/or market demands.

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C. DESCRIBE THE GENERAL SEQUENCE AND TIMING OF THE FOLLOWING ACTIVITIES**GRADING**

Grading to be completed after mineral extraction and within one year of permit expiration.
Grading variances may be requested for any areas requiring additional time.

REPLACEMENT OF TOPSOIL

Topsoil and Subsoil replacement to be completed after grading and within one year of permit expiration
Topsoil variances may be requested for any areas requiring additional time.

REVEGETATION

Revegetation to be completed after grading and/or topsoil/subsoil replacement and within two years of permit expiration
Revegetation variances may be requested for any areas requiring additional time.

AVERAGE DEPTH OF REPLACED TOPSOIL (INCHES)

Post 1990 Areas of Disturbance = All vegetation supporting material will be used for revegetation

D. USE OF LAND WHEN RECLAIMED

Estimate acreage of each land use below, after reclamation

ESTIMATED ACRES

Wildlife (forest or other habitat with livestock excluded)

Note: Final Use areas outlined on Mine Plan Map are approximate in size, location and configuration.
Actual Final Use, total acreage, location and configuration to be determined at time of final reclamation.

15 (approx.)

Agricultural (pasture, cropland, and horticultural)

Note: Final Use areas outlined on Mine Plan Map are approximate in size, location and configuration.
Actual Final Use, total acreage, location and configuration to be determined at time of final reclamation.

48 (approx.)

Development (residential, industrial, and recreational)

Note: Final Use areas outlined on Mine Plan Map are approximate in size, location and configuration.
Actual Final Use, total acreage, location and configuration to be determined at time of final reclamation.

9 (approx.)

Water impoundments (for wildlife, agricultural, or development)

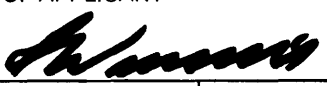
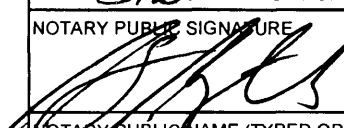


Note: Final Use areas outlined on Mine Plan Map are approximate in size, location and configuration.
Actual Final Use, total acreage, location and configuration to be determined at time of final reclamation.

80 (approx.)

By my signature, I attest to the following:

1. All statements made on this Mine Plan Form are correct, complete, and true, to the best of my knowledge.
2. I or the company I am authorized to represent intend(s) to mine in accordance with this Mine Plan Form, and in accordance with the Missouri Land Reclamation Act, Sections 444.760 through 444.789, RSMo (Supp. 1990), and all rules, regulations, orders, decisions and permits of the Missouri Land Reclamation Commission pertaining to my company's surface mining operations.
3. I have obtained the approval of all landowner's for all proposed post-reclamation land uses.
4. I have a valid agreement with all landowners which gives me the right to grant access to the Director of the Missouri Land Reclamation Commission and his authorized representatives, and I grant such access, and further where I have no such right, I have attached signed affidavits from the landowners, granting such access.

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SIGNATURE OF APPLICANT 		TITLE Executive Vice President		DATE 7-23-97	
NOTARY PUBLIC EMBOSSEER SEAL	STATE <u>Louisiana</u>		COUNTY (OR CITY OF ST. LOUIS) <u>Parish</u>		
	SUBSCRIBED AND SWORN BEFORE ME, THIS <u>31st</u> DAY OF <u>July</u> 19 <u>97</u>		USE RUBBER STAMP IN CLEAR AREA BELOW		
	NOTARY PUBLIC SIGNATURE 	MY COMMISSION EXPIRES <u>Issued for Life</u>	 KEVIN G. KYTLE NOTARY PUBLIC JEFFERSON PARISH, LOUISIANA My Commission is Issued For Life		
NOTARY PUBLIC NAME (TYPED OR PRINTED) <u>Kevin G. Kytle</u>					
APPROVED BY (DIRECTOR'S REPRESENTATIVE) 			DATE APPROVED <u>9-24-97</u>		PERMIT NUMBER <u>0067</u>



Department of Agronomy
Extension Programs
214 Waters Hall
Columbia, MO 65211

Soil Test Report

Serial no. C8797	Lab no. 00100
Area 26	County 016 Region 4
Submitted 12/28/90	Processed 01/03/91

FIELD INFORMATION		
Field ID 1	Sample no. 1	
Acres 7	Last Limed UNKNOWN	Irrigated NO
Last crop 19 COOL SEASON GR PAST		

Soil sample submitted by:

This report is for:
FARMERS LIMESTONE
PO BOX 66
OLD APPLETON, MO 63770

SOIL TEST INFORMATION		RATING						
		Very low	Low	Medium	High	Very High	Excess	
pH _s	6.1	*****						
Phosphorus (P)	17 lbs/a	*****						
Potassium (K)	202 lbs/a	*****						
Calcium (Ca)	3333 lbs/a	*****						
Magnesium (Mg)	954 lbs/a	*****						
Sulfur (SO ₄ -S)	ppm							
Zinc (Zn)	ppm							
Manganese (Mn)	ppm							
Iron (Fe)	ppm							
Copper (Cu)	ppm							
Organic matter:	0.4 %	Neutralizable acidity		1.0 meq 100g	Cation Exchange Capacity			13.6 meq 100g
Sodium (Na)	lbs/a	Electrical Conductivity		mmho/cm				
SUGGESTED ANNUAL TREATMENTS								
Cropping options	Yield goal	Pounds per acre					LIMESTONE SUGGESTIONS	
		N	P ₂ O ₅	K ₂ O	Zn	S		
4 COOL SEASON GRASS EST	0	40	60	20			Effective neutralizing material (ENM)	0
19 COOL SEASON GR PAST	160 CD/A	95	40	35			Effective magnesium (EMg)	0

When N requirement for cool season grass exceeds 90 pounds per acre apply two-thirds in the period December through February and the remainder in August.

Area Agronomy Specialist **GERALD BRYAN**

MP 189 (rev. 8-86) White - Farmer, Yellow - ASCS, Blue - Firm, Pink - Extension

Phone **(314) 243-3581**

S

G. Bryan
Signature



Department of Agronomy
Extension Programs
214 Waters Hall
Columbia, MO 65211

Soil Test Report

Serial no. C8796	Lab no. 00099
Area 26	County 016 Region 4
Submitted 12/28/90	Processed 01/03/91

FIELD INFORMATION			
Field ID 1	Sample no. 1		
Acres 16	Last Limed UNKNOWN	Irrigated NO	
Last crop 19 COOL SEASON GR PAST			

Soil sample submitted by:

This report is for:
PERRY COUNTY STONE
RT 3, BOX 115
PERRYVILLE, MO 63775

SOIL TEST INFORMATION			RATING					
			Very low	Low	Medium	High	Very High	Excess
pH _s	5.0		*****					
Phosphorus (P)	21 lbs/a		*****					
Potassium (K)	101 lbs/a		*****					
Calcium (Ca)	2187 lbs/a		*****					
Magnesium (Mg)	862 lbs/a		*****					
Sulfur (SO ₄ -S)		ppm						
Zinc (Zn)		ppm						
Manganese (Mn)		ppm						
Iron (Fe)		ppm						
Copper (Cu)		ppm						
Organic matter:	0.2 %	Neutralizable acidity	2.0 meq 100g	Cation Exchange Capacity 11.2 meq 100g				
Sodium (Na)		lbs/a	Electrical Conductivity	mmho cm				
SUGGESTED ANNUAL TREATMENTS								LIMESTONE SUGGESTIONS
Cropping options	Yield goal	Pounds per acre						
		N	P ₂ O ₅	K ₂ O	Zn	S		
4 COOL SEASON GRASS EST	0	40	50	45			Effective neutralizing material (ENM)	
19 COOL SEASON GR PAST	160 CD/A	95	30	70			Effective magnesium (EMg)	
							485	
							0	

To determine limestone needed in tons/acre, divide your ENM requirement by the guarantee of your limestone dealer.
When N requirement for cool season grass exceeds 90 pounds per acre apply two-thirds in the period December through February and the remainder in August.

Area Agronomy Specialist

GERALD BRYAN

Phone

(314)243-3581

MP 189 (rev. 8 86) White - Farmer, Yellow - ASCS, Blue - Firm, Pink - Extension

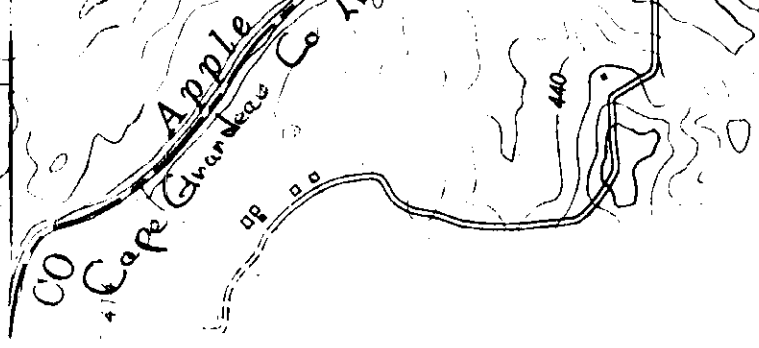
G. Bryan
Signature



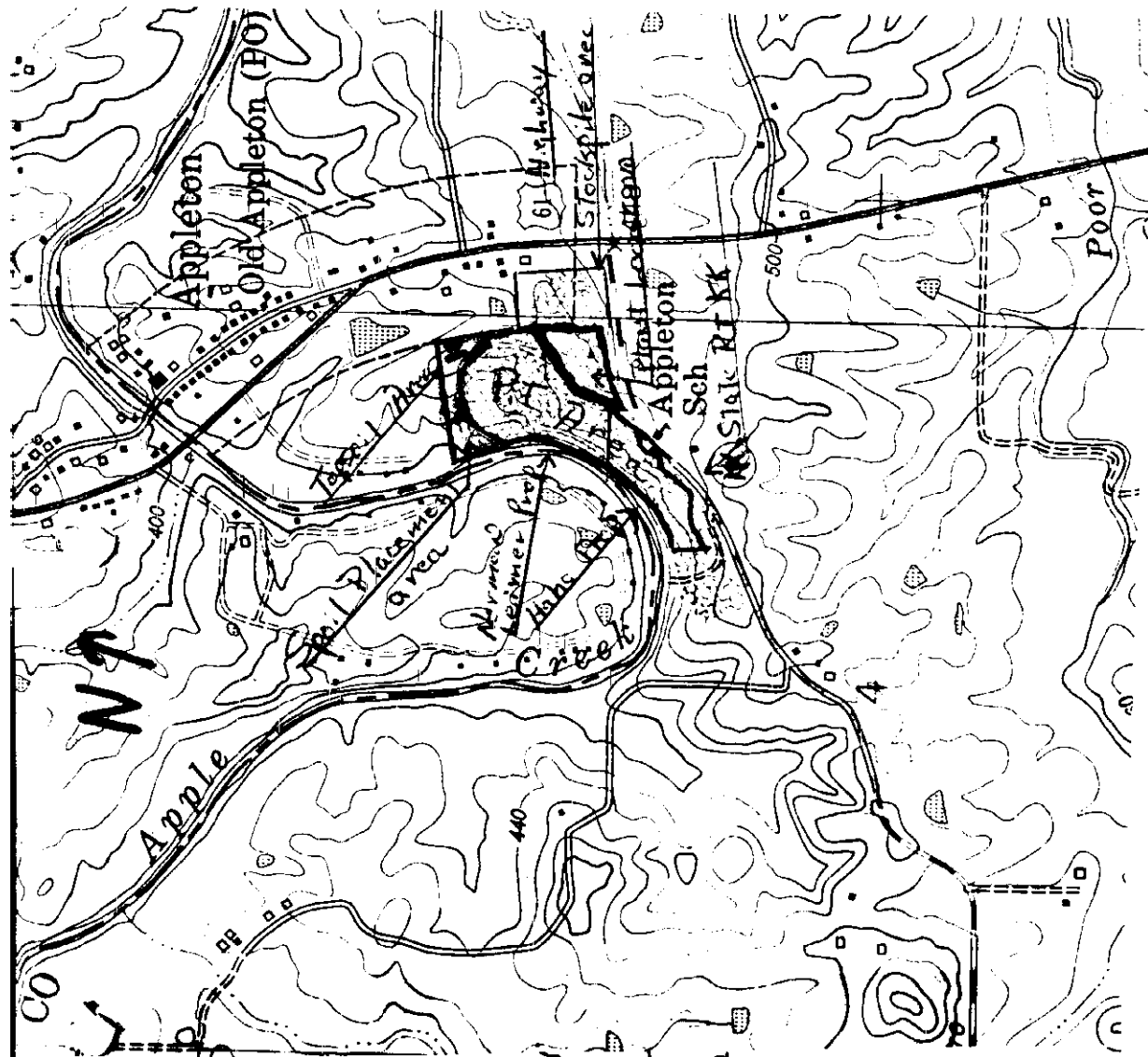
① Francos Habs
Property highlighted
in yellow.

② Norman Keimer
Property outlined
in red.

Farmer's Limestone
Cape Girardeau Co.
54-T33-R12
← N



All Roc
is currently
Lower Two



Topsoil Placement area
in yellow along N
edge of Property.

Spoil Placement area
in green along NW
edge of Property. Along
apple creek Bluffs.

Pit area outlined in red

Stockpile area - 4 Acres

Plant area - 1 Acre

Any further expansion
of Pit area will have
to come from plant
location area and stock-
pile area. Rock is
currently being removed
from lower ledges
of Pit along North end
of Pit.

Farmer's Limestone
Cape Girardeau Co.
34-T33-R12

Farmers Limestone
Plant, stockpile and
Pit area.

Old Appleton, Mo

Richard Hunst

Farmers Limestone
Cape Girardeau Co.

SH-T33-R12

1" = 100' SCALE
SEE MAP OS-206

N

LOT 5

LOT 5

LOT 5

LOT 5

LOT 5

LOT 5

LOT 5

LOT 5

LOT 5

LOT 5

LOT 5

LOT 5

LOT 5

LOT 5

LOT 5

LOT 5

LOT 5

LOT 5

LOT 5

165
T. 34 N.
T. 33 N.

164

35-6

HILDEBRAND 6.7 MI.
6.2 MI. TO MISSOURI B

16700000N

166

460

30

31

32

33

34

35

MINIMAL IF ANY STRIPPING
REQUIRED. MINIMAL IF
ANY TOPSOIL REMAINS, AND
AVAILABLE VEGETATION

MISSOURI DEPARTMENT OF NATURAL RESOURCES
LAND RECLAMATION COMMISSION
SITE INFORMATION FORM

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MISSOURI LAND
RECLAMATION COMMISSION

To be completed for each separate area of disturbance with mining operations		
SITE NAME OR NUMBER Van Buren Quarry		PERMIT NUMBER 67
COMPANY NAME Martin Marietta Materials, Inc.		
COUNTY Carter	1/4 SECTION	SECTION(S) 4
TOWNSHIP T27N	RANGE R01E	ACRES 133
RIVER OR STREAM NAME (FOR IN-STREAM ACRES) N/A		
MINERAL COMMODITY Limestone		ESTIMATED TONS/YEAR (FOR GRAVEL SITES) N/A

NAME OF LANDOWNER (ATTACH LIST IF MORE THAN ONE) Hurst Family Partnership, Inc.		
ADDRESS P. O. Box 151		
CITY Perryville	STATE MO	ZIP CODE 63775
SOURCE OF RIGHT TO MINE (CHECK ONE) <input type="checkbox"/> MINERAL DEED <input type="checkbox"/> WARRANTY DEED <input type="checkbox"/> OTHER (DESCRIBE): _____		DATE OF AGREEMENT 2/25/97
<input checked="" type="checkbox"/> LEASE <input type="checkbox"/> VERBAL AGREEMENT		

MINERAL RIGHTS OWNER (ATTACH LIST IF MORE THAN ONE) Same As Above		
ADDRESS		
CITY	STATE	ZIP CODE
SOURCE OF RIGHT TO MINE (CHECK ONE) <input type="checkbox"/> MINERAL DEED <input type="checkbox"/> WARRANTY DEED <input type="checkbox"/> OTHER (DESCRIBE): _____		DATE OF AGREEMENT
<input type="checkbox"/> LEASE <input type="checkbox"/> VERBAL AGREEMENT		
NOTE: Each site must be shown on a map and be included in a public notice and an approved mine plan.		

MISSOURI DEPARTMENT OF NATURAL RESOURCES
LAND RECLAMATION COMMISSION
MINE PLAN

MMA- Van Buren Quarry
P.O. BOX 176
Jefferson City, MO 65102

TYPE OF PLAN (CHECK ONE)

☐ SHORT TERM, FOR ONE PERMIT YEAR

☒ LONG TERM, FOR PERIOD THROUGH DATE:

1/1/25

DESCRIPTION OF SITE PRIOR TO LAND RECLAMATION COMMISSION PERMITTING (BY APPLICANT OR PRIOR OPERATOR), INCLUDING SOIL, VEGETATION AND TOPOGRAPHY.

**Area is primarily rolling hills covered with vegetation consisting of trees, shrubs, and grasses. According to the local county Soil Survey, predominant soils in this area exhibit typical characteristics of the following soil series:
Clarksville Series 42C;42D; & 42F; Very Cherty Silt Loam
Total overburden (material above mineral) varies from 10' 20'.**

OPERATION PLAN - 10 CSR 40-10.020(2)(D)1.

A. TOPSOIL

AVERAGE DEPTH OF TOPSOIL, PRIOR TO LAND RECLAMATION COMMISSION PERMITTING

A + BE = Approx. 8"

IS TOPSOIL TO BE SOLD OR DISCARDED OFFSITE?

☐ YES OR ☒ NO

DESCRIBE METHODS AND EQUIPMENT USED FOR TOPSOIL REMOVAL

Post 1990 Areas of Disturbance:

All Topsoil (A) and Subsoil (B) material will be removed using scrapers, dozers, and/or other earth moving equipment as deemed necessary by permittee.

Topsoil (A) and Subsoil (B) material may be placed over graded spoil/overburden from previous cut.

OR

Topsoil (A) and Subsoil (B) material may also be stockpiled for future reclamation.

Topsoil (A) and Subsoil (B) removal operations will be conducted in such a manner as to minimize erosion

Pre 1990 Areas of Disturbance:

Topsoil regulations do not apply.

DESCRIBE METHODS AND EQUIPMENT USED FOR TOPSOIL STORAGE AND PROTECTION

Post 1990 Areas of Disturbance:

Topsoil (A) and Subsoil (B) material that is to be stockpiled, will be placed by scrapers, dozers and/or other earth moving equipment as deemed necessary by permittee.

Topsoil (A) and Subsoil (B) storage operations will be conducted in such a manner as to minimize erosion

Pre 1990 Areas of Disturbance:

Topsoil regulations do not apply.

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B. SPOIL

DESCRIBE METHODS AND LOCATION OF SPOIL PLACEMENT AND DISPOSAL

Overburden removed from above the mineral deposit will be either returned to the previously mined areas of the pit or to other bonded areas.

Post 1990 Areas of Disturbance:

Overburden material will be sloped, as required by the regulations in place at time of original disturbance, prior to topsoil replacement.

Pre 1990 Areas of Disturbance:

Overburden material will be sloped as required by the regulations in place at time of original disturbance.

Slopes will generally be traversable by standard farm equipment depending upon final use.

Pre 1972 Areas of Disturbance (Pre-Law)

Areas designated as Pre 1972 are exempt from Land Reclamation Laws and Regulations.

C. ACID MATERIALS

DESCRIBE METHODS AND EQUIPMENT USED FOR HANDLING ACID MATERIALS (IF NONE ANTICIPATED, WRITE "NONE" BELOW)

Layer(s) of shale may be slightly acidic.

If acidic shale material is present, material will be covered by non-acidic overburden materials to a minimum depth of 2'.

PIT INFORMATION (GIVE ALL DIMENSIONS IN FEET)

DESCRIBE LOCATION AND ORIENTATION OF PIT, IF NOT CLEAR ON SITE MAPS

Please see map(s)

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RECLAMATION COMMISSION

YES	NO	
<input type="checkbox"/>	<input checked="" type="checkbox"/>	Will any excavation be at or within fifty feet (50') of the right-of-way of any public road?
<input type="checkbox"/>	<input checked="" type="checkbox"/>	Will any highwall consisting of unconsolidated materials be left within fifty feet of the right-of-way of any public road? (NOTE: For unconsolidated materials left in place, a slope of no more than forty degrees may start near the right-of-way, and in no case may the excavation be closer to the right-of-way than fifty feet or twenty-five plus one and one-half (1-1/2) times the depth of unconsolidated material, whichever is greater, unless a variance is granted by the Commission.)
<input type="checkbox"/>	<input checked="" type="checkbox"/>	Will any excavation start at or within fifty feet (50') of any property line? (NOTE: If the answer is "yes", a safety barrier may be needed.)

A. REVEGETATION (Attach additional sheets, if needed)

REVEGETATION MIX #	PURPOSE OR LAND USE	B. SEEDING OR PLANTING TIME
1	Agricultural	March - June August - October

DESCRIBE METHODS AND EQUIPMENT TO BE USED FOR SEEDING OR PLANTING

Post 1990 Areas of Disturbance:

After Topsoil / Subsoil replacement and grading are complete, soil will be worked with appropriate equipment, using recommended practices, to establish a seed bed.

Pre 1990 Areas of Disturbance:

After Overburden replacement and grading are complete, soil will be worked with appropriate equipment, using recommended practices, to establish a seed bed.

Seeding will be accomplished by using either the most appropriate methods and seed mixes recommended by the local soil regulatory agency (if available) or by using successful past experiences to ensure proper germination.

Seeding methods may include one or any combination of the following: Broadcast, Drilling, Hydroseeding

Field adjustments of both quantity and species variety may be necessary to ensure adequate vegetation.

Revegetation mixes will include one or more of the grasses and one or more of the legumes listed below:

Lime and fertilizer will be applied according to recommendations, based upon an analysis of soil texture and nutrients. Mulch will be applied to all slopes exceeding 5:1.

Cool Season Grasses			Legumes		
Seeded Species	Pounds/Acre		Seeded Species	Pounds/Acre	
Tall Fescue	12	PLS (min)	Alfalfa	10	PLS (min)
Ryegrass	10	PLS (min)	Red Clover	5	PLS (min)
Bromegrass	8	PLS (min)	Lespedeza	10	PLS (min)
Orchardgrass	5	PLS (min)	Crownvetch	10	PLS (min)
Timothy	4	PLS (min)			

PLS = Pure Live Seed (min) = Minimum application rate if used

REVEGETATION MIX #	PURPOSE OR LAND USE	B. SEEDING OR PLANTING TIME
2	Wildlife	March - June August - October

DESCRIBE METHODS AND EQUIPMENT TO BE USED FOR SEEDING OR PLANTING

Post 1990 Areas of Disturbance:

Where necessary, and after Topsoil / Subsoil replacement and grading are complete, soil will be worked with appropriate equipment, using recommended practices, to establish a seed bed.

Pre 1990 Areas of Disturbance:

Where necessary, and after Overburden replacement and grading are complete, soil will be worked with appropriate equipment, using recommended practices, to establish a seed bed.

Seeding will be accomplished by either using the most appropriate methods and seed mixes recommended by the local soil regulatory agency (if available) or by using successful past experiences to ensure proper germination.

Seeding methods may include one or any combination of the following: Broadcast, Drilling, Hydroseeding

Field adjustments of both quantity and species variety may be necessary to ensure adequate vegetation.

Revegetation mixes will include one or more of the grasses and one or more of the legumes listed below:

Lime and fertilizer will be applied according to recommendations, based upon an analysis of soil texture and nutrients. Mulch will be applied to all slopes exceeding 5:1.

Warm Season Grasses			Legumes		
Seeded Species	Pounds/Acre		Seeded Species	Pounds/Acre	
Switchgrass	4	PLS (min)	Alfalfa	10	PLS (min)
Big Bluestem	7	PLS (min)	Red Clover	5	PLS (min)
Indian Grass	7	PLS (min)	Lespedeza	10	PLS (min)

PLS = Pure Live Seed (min) = Minimum application rate if used

ATTACH ADDITIONAL SHEETS FOR ADDITIONAL SEED MIXES.

A. REVEGETATION (Attach additional sheets, if needed)

REVEGETATION MIX #	PURPOSE OR LAND USE	B. SEEDING OR PLANTING TIME
3	Water Impoundments	March - June August - October

DESCRIBE METHODS AND EQUIPMENT TO BE USED FOR SEEDING OR PLANTING

Post 1990 Areas of Disturbance:

After Topsoil / Subsoil replacement and grading are complete, soil will be worked with appropriate equipment, using recommended practices, to establish a seed bed.

Pre 1990 Areas of Disturbance:

After Overburden replacement and grading are complete, soil will be worked with appropriate equipment, using recommended practices, to establish a seed bed.

Seeding will be accomplished by using either the most appropriate methods and seed mixes recommended by the local soil regulatory agency (if available) or by using successful past experiences to ensure proper germination.

Seeding methods may include one or any combination of the following: Broadcast, Drilling, Hydroseeding

Field adjustments of both quantity and species variety may be necessary to ensure adequate vegetation.

Revegetation mixes will include one or more of the grasses and one or more of the legumes listed below:

Lime and fertilizer will be applied according to recommendations, based upon an analysis of soil texture and nutrients. Mulch will be applied to all slopes exceeding 5:1.

Cool Season Grasses		Warm Season Grasses		Legumes	
Seeded Species	Pounds/Acre	Seeded Species	Pounds/Acre	Seeded Species	Pounds/Acre
Tall Fescue	24 PLS (min)	Switchgrass	8 PLS (min)	Alfalfa	10 PLS (min)
Ryegrass	20 PLS (min)	Big Bluestem	14 PLS (min)	Red Clover	5 PLS (min)
Bromegrass	16 PLS (min)	Indian Grass	14 PLS (min)	Lespedeza	10 PLS (min)
Orchardgrass	5 PLS (min)				
Timothy	4 PLS (min)				

PLS = Pure Live Seed (min) = Minimum application rate if used

REVEGETATION MIX #	PURPOSE OR LAND USE	B. SEEDING OR PLANTING TIME
4	Industrial	March - June August - October

DESCRIBE METHODS AND EQUIPMENT TO BE USED FOR SEEDING OR PLANTING

Post 1990 Areas of Disturbance:

After Topsoil / Subsoil replacement and grading are complete, soil will be worked with appropriate equipment, using recommended practices, to establish a seed bed.

Pre 1990 Areas of Disturbance:

After Overburden replacement and grading are complete, soil will be worked with appropriate equipment, using recommended practices, to establish a seed bed.

Seeding will be accomplished by using either the most appropriate methods and seed mixes recommended by the local soil regulatory agency (if available) or by using successful past experiences to ensure proper germination.

Seeding methods may include one or all of the following: Broadcast, Drilling, Hydroseeding

Field adjustments of both quantity and species variety may be necessary to ensure adequate vegetation.

Revegetation mixes will include one or more of the grasses and one or more of the legumes listed below:

Lime and fertilizer will be applied according to recommendations, based upon an analysis of soil texture and nutrients. Mulch will be applied to all slopes exceeding 5:1.

Cool Season Grasses		Legumes	
Seeded Species	Pounds/Acre	Seeded Species	Pounds/Acre
Tall Fescue	12 PLS (min)	Alfalfa	20 PLS (min)
Ryegrass	10 PLS (min)	Red Clover	10 PLS (min)
Bromegrass	8 PLS (min)	Lespedeza	20 PLS (min)
Orchardgrass	5 PLS (min)	Crownvetch	20 PLS (min)
Timothy	4 PLS (min)		

PLS = Pure Live Seed (min) = Minimum application rate if used

ATTACH ADDITIONAL SHEETS FOR ADDITIONAL SEED MIXES.

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B. GRADING

MMA- Van Buren Quarry

DESCRIBE PROPOSED RECLAIMED TOPOGRAPHY, INCLUDING SLOPES

Agricultural Use:*All reclaimed areas will be graded so as to be traversable by standard farm equipment.**All reclaimed areas will be sown with appropriate revegetation mix and may include volunteer indigenous species which would support the intended use.***Wildlife Use:***All reclaimed areas will have a gradient suitable for wildlife.**Where necessary, reclaimed areas will be sown with appropriate revegetation mix and may include volunteer indigenous species which would support the intended use.***Water Impoundment:***All reclaimed areas will meet guidelines/regulations in effect at time of reclamation and established by the appropriate regulatory agencies.**Where necessary, reclaimed areas will be sown with appropriate revegetation mix and may include volunteer indigenous species which would support the intended use.***Industrial Use:***All reclaimed areas will be neat, orderly, and free of mining activity debris.**Where necessary, reclaimed areas will be sown with appropriate revegetation mix and may include volunteer indigenous species which would support the intended use.**Note: All final reclamation uses to meet guidelines/regulations in place at time of original disturbance.**Note: Final Reclamation Uses, size, location, and configuration can be influenced by a variety of factors including, but not limited to: depth of mineral extraction, variations in quality of mineral being mined, and/or market demands.***C. DESCRIBE THE GENERAL SEQUENCE AND TIMING OF THE FOLLOWING ACTIVITIES****GRADING***Grading to be completed after mineral extraction and within one year of permit expiration.
Grading variances may be requested for any areas requiring additional time.***REPLACEMENT OF TOPSOIL***Topsoil and Subsoil replacement to be completed after grading and within one year of permit expiration**Topsoil variances may be requested for any areas requiring additional time.***REVEGETATION***Revegetation to be completed after grading and/or topsoil/subsoil replacement and within two years of permit expiration**Revegetation variances may be requested for any areas requiring additional time.***AVERAGE DEPTH OF REPLACED TOPSOIL (INCHES)****Post 1990 Areas of Disturbance = 8" (A + BE Zone)****D. USE OF LAND WHEN RECLAIMED**

Estimate acreage of each land use below, after reclamation

ESTIMATED ACRES

Wildlife (forest or other habitat with livestock excluded)

87 (approx.)*Note: Final Use areas outlined on Mine Plan Map are approximate in size, location and configuration.**Actual Final Use, total acreage, location and configuration to be determined at time of final reclamation.*

Agricultural (pasture, cropland, and horticultural)

3 (approx.)*Note: Final Use areas outlined on Mine Plan Map are approximate in size, location and configuration.**Actual Final Use, total acreage, location and configuration to be determined at time of final reclamation.*

Development (residential, industrial, and recreational)

15 (approx.)*Note: Final Use areas outlined on Mine Plan Map are approximate in size, location and configuration.**Actual Final Use, total acreage, location and configuration to be determined at time of final reclamation.*

Water impoundments (for wildlife, agricultural, or development)

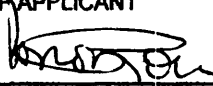
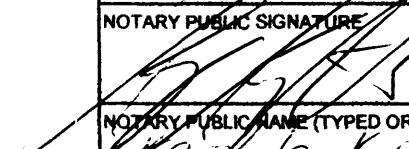

28 (approx.)*Note: Final Use areas outlined on Mine Plan Map are approximate in size, location and configuration.**Actual Final Use, total acreage, location and configuration to be determined at time of final reclamation.*

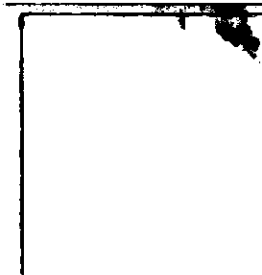
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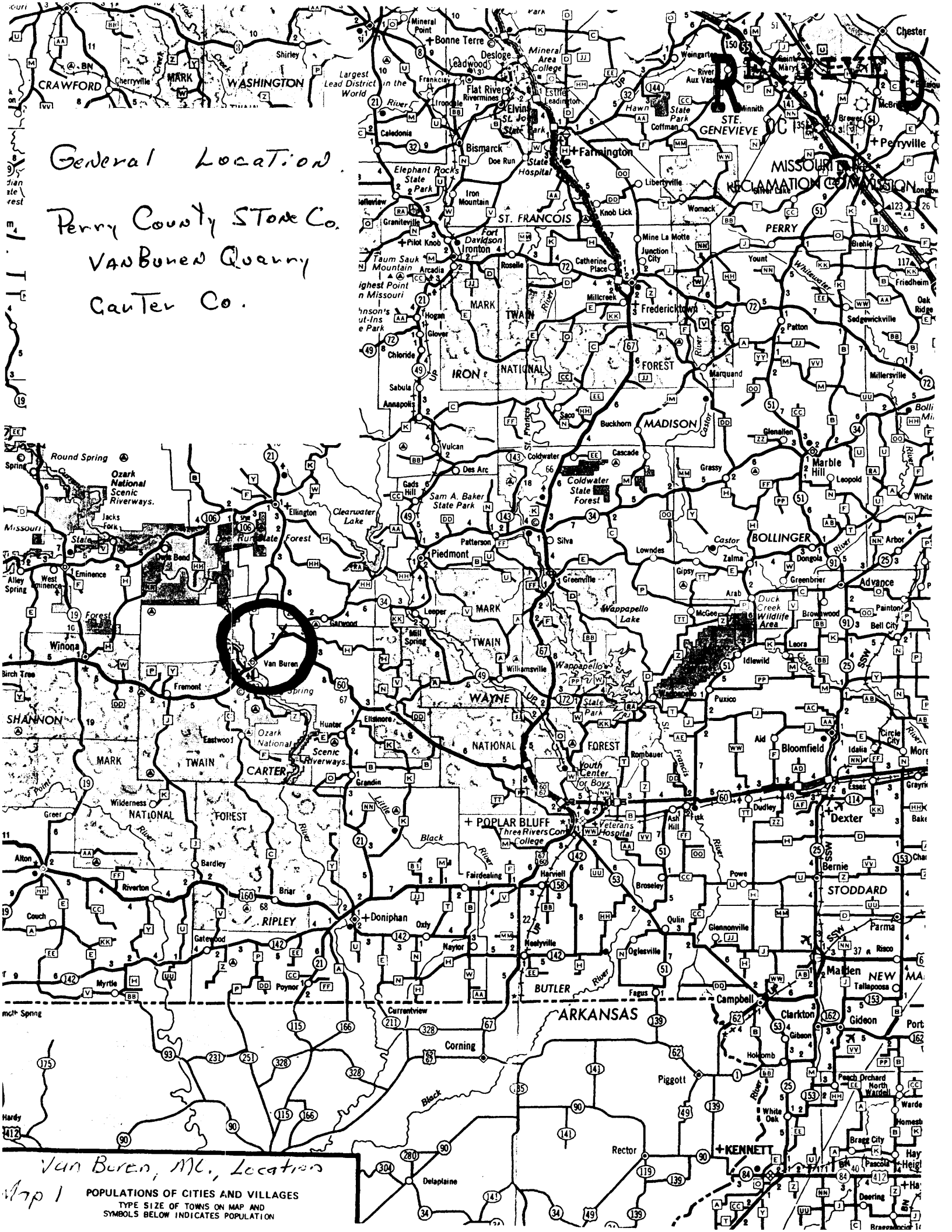
By my signature, I attest to the following:

1. All statements made on this Mine Plan Form are correct, complete, and true, to the best of my knowledge.
2. I or the company I am authorized to represent intend(s) to mine in accordance with this Mine Plan Form, and in accordance with the Missouri Land Reclamation Act, Sections 444.760 through 444.789, RSMo (Supp. 1990), and all rules, regulations, orders, decisions and permits of the Missouri Land Reclamation Commission pertaining to my company's surface mining operations.
3. I have obtained the approval of all landowner's for all proposed post-reclamation land uses.
4. I have a valid agreement with all landowners which gives me the right to grant access to the Director of the Missouri Land Reclamation Commission and his authorized representatives, and I grant such access, and further where I have no such right, I have attached signed affidavits from the landowners, granting such access.

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MISSOURI LAND
RECLAMATION COMMISSION

SIGNATURE OF APPLICANT 		TITLE President Central Division		DATE 2/9/00	
NOTARY PUBLIC EMBOSSEER SEAL	STATE Louisiana		COUNTY (OR CITY OF ST. LOUIS)		
	SUBSCRIBED AND SWORN BEFORE ME, THIS 10th DAY OF February 2000				
	NOTARY PUBLIC SIGNATURE 		USE RUBBER STAMP IN CLEAR AREA BELOW KEVIN G. KITTLE NOTARY PUBLIC MISSOURI LAND RECLAMATION COMMISSION		
	NOTARY PUBLIC NAME (TYPED OR PRINTED) Kevin G. Kittle				
APPROVED BY (DIRECTOR'S REPRESENTATIVE) 		DATE APPROVED August 7, 2000		PERMIT NUMBER 80067	





General Location

Perry County Stone Co.

Van Buren Quarry

Carter Co.

POPULATIONS OF CITIES AND VILLAGES
TYPE SIZE OF TOWNS ON MAP AND
SYMBOLS BELOW INDICATES POPULATION

MISSOURI DEPARTMENT OF NATURAL RESOURCES
LAND RECLAMATION COMMISSION
SITE INFORMATION FORM

To be completed for each separate area of disturbance with mining operations		
SITE NAME OR NUMBER Perryville Quarry		PERMIT NUMBER 67
COMPANY NAME Martin Marietta Materials, Inc.		
COUNTY Perry	1/4 SECTION	SECTION(S) 19
TOWNSHIP T36N	RANGE R11E	ACRES 287
RIVER OR STREAM NAME (FOR IN STREAM ACRES) N/A		
MINERAL COMMODITY Limestone		ESTIMATED TONS/YEAR (FOR GRAVEL SITES) N/A

NAME OF LANDOWNER (ATTACH LIST IF MORE THAN ONE) Hurst Family Partnership, Inc.		
ADDRESS P. O. Box 151		
CITY Perryville	STATE MO	ZIP CODE 63775
SOURCE OF RIGHT TO MINE (CHECK ONE) <input type="checkbox"/> MINERAL DEED <input type="checkbox"/> WARRANTY DEED <input type="checkbox"/> OTHER (DESCRIBE) _____		DATE OF AGREEMENT 2/25/97
<input checked="" type="checkbox"/> LEASE		<input type="checkbox"/> VERBAL AGREEMENT

MINERAL RIGHTS OWNER (ATTACH LIST IF MORE THAN ONE) Same As Above		
ADDRESS		
CITY	STATE	ZIP CODE
SOURCE OF RIGHT TO MINE (CHECK ONE) <input type="checkbox"/> MINERAL DEED <input type="checkbox"/> WARRANTY DEED <input type="checkbox"/> OTHER (DESCRIBE) _____		DATE OF AGREEMENT
<input type="checkbox"/> LEASE		<input type="checkbox"/> VERBAL AGREEMENT
NOTE: Each site must be shown on a map and be included in a public notice and an approved mine plan		

MISSOURI DEPARTMENT OF NATURAL RESOURCES
LAND RECLAMATION COMMISSION
MINE PLAN

MMA- Perry.
P.O. BOX 176
Jefferson City, MO 65102

TYPE OF PLAN (CHECK ONE)

☐ SHORT TERM, FOR ONE PERMIT YEAR

☒ LONG TERM, FOR PERIOD THROUGH DATE:

1/1/25

DESCRIPTION OF SITE PRIOR TO LAND RECLAMATION COMMISSION PERMITTING (BY APPLICANT OR PRIOR OPERATOR), INCLUDING SOIL, VEGETATION AND TOPOGRAPHY.

*Area is primarily rolling hills covered with vegetation consisting of trees, shrubs, and grasses. According to the local county Soil Survey, predominant soils in this area exhibit typical characteristics of the following soil series:
Menfro Series 1E2 (Menfro Silt Loam)
Gasconade Series (< 40" Soil over Bedrock)
Total overburden (material above mineral) varies from 10' 20'.*

OPERATION PLAN - 10 CSR 40-10.020(2)(D)1.

A. TOPSOIL

AVERAGE DEPTH OF TOPSOIL, PRIOR TO LAND RECLAMATION COMMISSION PERMITTING

Menfro Ap + Bt1 + Bt2 = Approx. 15"

Gasconade A1 + A2 = Approx. 9"

IS TOPSOIL TO BE SOLD OR DISCARDED OFFSITE?

☐ YES OR ☒ NO

DESCRIBE METHODS AND EQUIPMENT USED FOR TOPSOIL REMOVAL

Post 1990 Areas of Disturbance:

All Topsoil (A) and Subsoil (B) material will be removed using scrapers, dozers, and/or other earth moving equipment as deemed necessary by permittee.

Topsoil (A) and Subsoil (B) material may be placed over graded spoil/overburden from previous cut.

OR

Topsoil (A) and Subsoil (B) material may also be stockpiled for future reclamation.

Topsoil (A) and Subsoil (B) removal operations will be conducted in such a manner as to minimize erosion

Pre 1990 Areas of Disturbance:

Topsoil regulations do not apply.

DESCRIBE METHODS AND EQUIPMENT USED FOR TOPSOIL STORAGE AND PROTECTION

Post 1990 Areas of Disturbance:

Topsoil (A) and Subsoil (B) material that is to be stockpiled, will be placed by scrapers, dozers and/or other earth moving equipment as deemed necessary by permittee.

Topsoil (A) and Subsoil (B) storage operations will be conducted in such a manner as to minimize erosion

Pre 1990 Areas of Disturbance:

Topsoil regulations do not apply.

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DESCRIBE METHODS AND LOCATION OF SPOIL PLACEMENT AND DISPOSAL

Overburden removed from above the mineral deposit will be either returned to the previously mined areas of the pit or to other bonded areas.

Post 1990 Areas of Disturbance:

Overburden material will be sloped, as required by the regulations in place at time of original disturbance, prior to topsoil replacement.

Pre 1990 Areas of Disturbance:

Overburden material will be sloped as required by the regulations in place at time of original disturbance.

Slopes will generally be traversable by standard farm equipment depending upon final use.

Pre 1972 Areas of Disturbance (Pre-Law)

Areas designated as Pre 1972 are exempt from Land Reclamation Laws and Regulations.

C. ACID MATERIALS

DESCRIBE METHODS AND EQUIPMENT USED FOR HANDLING ACID MATERIALS (IF NONE ANTICIPATED, WRITE "NONE" BELOW)

Layer(s) of shale may be slightly acidic.

If acidic shale material is present, material will be covered by non-acidic overburden materials to a minimum depth of 2'.

PIT INFORMATION (C. DIMENSIONS IN FEET)

DESCRIBE LOCATION AND ORIENTATION OF PIT, IF NOT CLEAR ON SITE MAPS

Please see map(s)

YES

NO

☐☒

Will any excavation be at or within fifty feet (50') of the right-of-way of any public road?

☐☒

Will any highwall consisting of unconsolidated materials be left within fifty feet of the right-of-way of any public road? (NOTE: For unconsolidated materials left in place, a slope of no more than forty degrees may start near the right-of-way, and in no case may the excavation be closer to the right-of-way than fifty feet or twenty-five plus one and one-half (1-1/2) times the depth of unconsolidated material, whichever is greater, unless a variance is granted by the Commission.)

☐☒

Will any excavation start at or within fifty feet (50') of any property line?
(NOTE: If the answer is "yes", a safety barrier may be needed.)

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A. REVEGETATION (Attach additional sheets, if needed)

REVEGETATION MIX #	PURPOSE OR LAND USE	B. SEEDING OR PLANTING TIME
1	Agricultural	March - June August - October

DESCRIBE METHODS AND EQUIPMENT TO BE USED FOR SEEDING OR PLANTING

Post 1990 Areas of Disturbance:

After Topsoil / Subsoil replacement and grading are complete, soil will be worked with appropriate equipment, using recommended practices, to establish a seed bed.

Pre 1990 Areas of Disturbance:

After Overburden replacement and grading are complete, soil will be worked with appropriate equipment, using recommended practices, to establish a seed bed.

Seeding will be accomplished by using either the most appropriate methods and seed mixes recommended by the local soil regulatory agency (if available) or by using successful past experiences to ensure proper germination.

Seeding methods may include one or any combination of the following: Broadcast, Drilling, Hydroseeding

Field adjustments of both quantity and species variety may be necessary to ensure adequate vegetation.

Revegetation mixes will include one or more of the grasses and one or more of the legumes listed below:

Lime and fertilizer will be applied according to recommendations, based upon an analysis of soil texture and nutrients. Mulch will be applied to all slopes exceeding 5:1.

Cool Season Grasses			Legumes		
Seeded Species	Pounds/Acre		Seeded Species	Pounds/Acre	
Tall Fescue	12	PLS (min)	Alfalfa	10	PLS (min)
Ryegrass	10	PLS (min)	Red Clover	5	PLS (min)
Bromegrass	8	PLS (min)	Lespedeza	10	PLS (min)
Orchardgrass	5	PLS (min)	Crownvetch	10	PLS (min)
Timothy	4	PLS (min)			

PLS = Pure Live Seed (min) = Minimum application rate if used

REVEGETATION MIX #	PURPOSE OR LAND USE	B. SEEDING OR PLANTING TIME
2	Wildlife	March - June August - October

DESCRIBE METHODS AND EQUIPMENT TO BE USED FOR SEEDING OR PLANTING

Post 1990 Areas of Disturbance:

Where necessary, and after Topsoil / Subsoil replacement and grading are complete, soil will be worked with appropriate equipment, using recommended practices, to establish a seed bed.

Pre 1990 Areas of Disturbance:

Where necessary, and after Overburden replacement and grading are complete, soil will be worked with appropriate equipment, using recommended practices, to establish a seed bed.

Seeding will be accomplished by either using the most appropriate methods and seed mixes recommended by the local soil regulatory agency (if available) or by using successful past experiences to ensure proper germination.

Seeding methods may include one or any combination of the following: Broadcast, Drilling, Hydroseeding

Field adjustments of both quantity and species variety may be necessary to ensure adequate vegetation.

Revegetation mixes will include one or more of the grasses and one or more of the legumes listed below:

Lime and fertilizer will be applied according to recommendations, based upon an analysis of soil texture and nutrients. Mulch will be applied to all slopes exceeding 5:1.

Warm Season Grasses			Legumes		
Seeded Species	Pounds/Acre		Seeded Species	Pounds/Acre	
Switchgrass	4	PLS (min)	Alfalfa	10	PLS (min)
Big Bluestem	7	PLS (min)	Red Clover	5	PLS (min)
Indian Grass	7	PLS (min)	Lespedeza	10	PLS (min)

PLS = Pure Live Seed (min) = Minimum application rate if used

ATTACH ADDITIONAL SHEETS FOR ADDITIONAL SEED MIXES.

A. REVEGETATION (Attach additional sheets, if needed)

REVEGETATION MIX #	PURPOSE OR LAND USE	B. SEEDING OR PLANTING TIME
3	Water Impoundments	March - June August - October

DESCRIBE METHODS AND EQUIPMENT TO BE USED FOR SEEDING OR PLANTING

Post 1990 Areas of Disturbance:

After Topsoil / Subsoil replacement and grading are complete, soil will be worked with appropriate equipment, using recommended practices, to establish a seed bed.

Pre 1990 Areas of Disturbance:

After Overburden replacement and grading are complete, soil will be worked with appropriate equipment, using recommended practices, to establish a seed bed.

Seeding will be accomplished by using either the most appropriate methods and seed mixes recommended by the local soil regulatory agency (if available) or by using successful past experiences to ensure proper germination.

Seeding methods may include one or any combination of the following: Broadcast, Drilling, Hydroseeding

Field adjustments of both quantity and species variety may be necessary to ensure adequate vegetation.

Revegetation mixes will include one or more of the grasses and one or more of the legumes listed below:

Lime and fertilizer will be applied according to recommendations, based upon an analysis of soil texture and nutrients. Mulch will be applied to all slopes exceeding 5:1.

Cool Season Grasses		Warm Season Grasses		Legumes	
Seeded Species	Pounds/Acre	Seeded Species	Pounds/Acre	Seeded Species	Pounds/Acre
Tall Fescue	24 PLS (min)	Switchgrass	8 PLS (min)	Alfalfa	10 PLS (min)
Ryegrass	20 PLS (min)	Big Bluestem	14 PLS (min)	Red Clover	5 PLS (min)
Bromegrass	16 PLS (min)	Indian Grass	14 PLS (min)	Lespedeza	10 PLS (min)
Orchardgrass	5 PLS (min)				
Timothy	4 PLS (min)				

PLS = Pure Live Seed (min) = Minimum application rate if used

REVEGETATION MIX #	PURPOSE OR LAND USE	B. SEEDING OR PLANTING TIME
4	Industrial	March - June August - October

DESCRIBE METHODS AND EQUIPMENT TO BE USED FOR SEEDING OR PLANTING

Post 1990 Areas of Disturbance:

After Topsoil / Subsoil replacement and grading are complete, soil will be worked with appropriate equipment, using recommended practices, to establish a seed bed.

Pre 1990 Areas of Disturbance:

After Overburden replacement and grading are complete, soil will be worked with appropriate equipment, using recommended practices, to establish a seed bed.

Seeding will be accomplished by using either the most appropriate methods and seed mixes recommended by the local soil regulatory agency (if available) or by using successful past experiences to ensure proper germination.

Seeding methods may include one or all of the following: Broadcast, Drilling, Hydroseeding

Field adjustments of both quantity and species variety may be necessary to ensure adequate vegetation.

Revegetation mixes will include one or more of the grasses and one or more of the legumes listed below:

Lime and fertilizer will be applied according to recommendations, based upon an analysis of soil texture and nutrients. Mulch will be applied to all slopes exceeding 5:1.

Cool Season Grasses		Legumes	
Seeded Species	Pounds/Acre	Seeded Species	Pounds/Acre
Tall Fescue	12 PLS (min)	Alfalfa	20 PLS (min)
Ryegrass	10 PLS (min)	Red Clover	10 PLS (min)
Bromegrass	8 PLS (min)	Lespedeza	20 PLS (min)
Orchardgrass	5 PLS (min)	Crownvetch	20 PLS (min)
Timothy	4 PLS (min)		

PLS = Pure Live Seed (min) = Minimum application rate if used

ATTACH ADDITIONAL SHEETS FOR ADDITIONAL SEED MIXES.

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B. GRADING

MMA- Perryville Quarry

DESCRIBE PROPOSED RECLAIMED TOPOGRAPHY, INCLUDING SLOPES

Agricultural Use:

All reclaimed areas will be graded so as to be traversable by standard farm equipment.
 All reclaimed areas will be sown with appropriate revegetation mix and may include volunteer indigenous species which would support the intended use.

Wildlife Use:

All reclaimed areas will have a gradient suitable for wildlife.
 Where necessary, reclaimed areas will be sown with appropriate revegetation mix and may include volunteer indigenous species which would support the intended use.

Water Impoundment:

All reclaimed areas will meet guidelines/regulations in effect at time of reclamation and established by the appropriate regulatory agencies.
 Where necessary, reclaimed areas will be sown with appropriate revegetation mix and may include volunteer indigenous species which would support the intended use.

Industrial Use:

All reclaimed areas will be neat, orderly, and free of mining activity debris.
 Where necessary, reclaimed areas will be sown with appropriate revegetation mix and may include volunteer indigenous species which would support the intended use.

Note: All final reclamation uses to meet guidelines/regulations in place at time of original disturbance.

Note: Final Reclamation Uses, size, location, and configuration can be influenced by a variety of factors including, but not limited to: depth of mineral extraction, variations in quality of mineral being mined, and/or market demands.

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C. DESCRIBE THE GENERAL SEQUENCE AND TIMING OF THE FOLLOWING ACTIVITIES**GRADING**

Grading to be completed after mineral extraction and within one year of permit expiration.
 Grading variances may be requested for any areas requiring additional time.

REPLACEMENT OF TOPSOIL

Topsoil and Subsoil replacement to be completed after grading and within one year of permit expiration
 Topsoil variances may be requested for any areas requiring additional time.

REVEGETATION

Revegetation to be completed after grading and/or topsoil/subsoil replacement and within two years of permit expiration
 Revegetation variances may be requested for any areas requiring additional time.

AVERAGE DEPTH OF REPLACED TOPSOIL (INCHES)


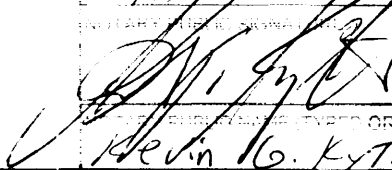
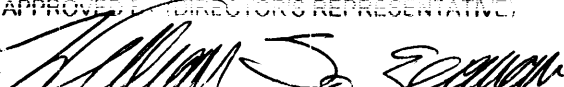
Post 1990 Areas of Disturbance = Menfro = Approx. 15", Gasconade = Approx. 9"

D. USE OF LAND WHEN RECLAIMED

Estimate acreage of each land use below, after reclamation	ESTIMATED ACRES	
Wildlife (forest or other habitat with livestock excluded) Note: Final Use areas outlined on Mine Plan Map are approximate in size, location and configuration. Actual Final Use, total acreage, location and configuration to be determined at time of final reclamation.	99	(approx.)
Agricultural (pasture, cropland, and horticultural) Note: Final Use areas outlined on Mine Plan Map are approximate in size, location and configuration. Actual Final Use, total acreage, location and configuration to be determined at time of final reclamation.	63	(approx.)
Development (residential, industrial, and recreational) Pre-Mining Law Area; No Reclamation Note: Final Use areas outlined on Mine Plan Map are approximate in size, location and configuration. Actual Final Use, total acreage, location and configuration to be determined at time of final reclamation.	25 16	(approx.) (approx.)
Water impoundments (for wildlife, agricultural, or development) Note: Final Use areas outlined on Mine Plan Map are approximate in size, location and configuration. Actual Final Use, total acreage, location and configuration to be determined at time of final reclamation.	84	(approx.)

By my signature, I attest to the following:

1. All statements made on this Mine Plan Form are correct, complete, and true, to the best of my knowledge.
2. I or the company I am authorized to represent intend(s) to mine in accordance with this Mine Plan Form, and in accordance with the Missouri Land Reclamation Act, Sections 444.760 through 444.789, RSMo (Supp. 1990), and all rules, regulations, orders, decisions and permits of the Missouri Land Reclamation Commission pertaining to my company's surface mining operations.
3. I have obtained the approval of all landowner's for all proposed post-reclamation land uses.
4. I have a valid agreement with all landowners which gives me the right to grant access to the Director of the Missouri Land Reclamation Commission and his authorized representatives, and I grant such access and further where I have no such right, I have attached signed affidavits from the landowners, granting such access.

SIGNATURE OF APPLICANT 		TITLE President Central Division	DATE 2/9/00
NOTARY PUBLIC 	STATE Louisiana	COUNTY (OR CITY OF ST. LOUIS)	
SUBSCRIBED AND SWORN BEFORE ME, THIS 10th DAY OF February 2000		USE RUBBER STAMP IN CLEAR AREA BELOW	
MY COMMISSION for life		KEVIN G. KYLE NOTARY PUBLIC JEFFERSON PARISH, LOUISIANA STONIS 100	
APPROVED BY DIRECTOR OR REPRESENTATIVE 	DATE APPROVED August 7, 2000	PERMIT NUMBER 0067	

MO 789-100 (2-99)

PAGE 6 OF 6

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MISSOURI LAND
RECLAMATION COMMISSION



MISSOURI DEPARTMENT OF NATURAL RESOURCES
LAND RECLAMATION COMMISSION
SITE INFORMATION FORM

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To be completed for each separate area of disturbance with mining operations			MISSOURI LAND RECLAMATION COMMISSION
SITE NAME OR NUMBER Barnhart Quarry		PERMIT NUMBER 67	
COMPANY NAME Martin Marietta Materials, Inc.			
COUNTY Jefferson	1/4 SECTION	SECTION(S) 32	
TOWNSHIP T42N	RANGE R06E	ACRES 88	
RIVER OR STREAM NAME (FOR IN-STREAM ACRES) N/A			
MINERAL COMMODITY Limestone		ESTIMATED TONS/YEAR (FOR GRAVEL SITES) N/A	

NAME OF LANDOWNER (ATTACH LIST IF MORE THAN ONE) Martin Marietta Materials, Inc.		
ADDRESS 160 James Drive East Suite 200		
CITY St. Rose	STATE LA	ZIP CODE 70087
SOURCE OF RIGHT TO MINE (CHECK ONE)		DATE OF AGREEMENT
<input type="checkbox"/> MINERAL DEED <input type="checkbox"/> LEASE		NA
<input checked="" type="checkbox"/> WARRANTY DEED <input type="checkbox"/> VERBAL AGREEMENT		
<input type="checkbox"/> OTHER (DESCRIBE): _____		

MINERAL RIGHTS OWNER (ATTACH LIST IF MORE THAN ONE) Same As Above		
ADDRESS		
CITY	STATE	ZIP CODE
SOURCE OF RIGHT TO MINE (CHECK ONE)		DATE OF AGREEMENT
<input type="checkbox"/> MINERAL DEED <input type="checkbox"/> LEASE		
<input type="checkbox"/> WARRANTY DEED <input type="checkbox"/> VERBAL AGREEMENT		
<input type="checkbox"/> OTHER (DESCRIBE): _____		
NOTE: Each site must be shown on a map and be included in a public notice and an approved mine plan.		

MISSOURI DEPARTMENT OF NATURAL RESOURCES
LAND RECLAMATION COMMISSION
MINE PLAN

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MMA- Barnhart Quarry

P.O. BOX 176

Jefferson City, MO 65102

TYPE OF PLAN (CHECK ONE)		MISSOURI LAND RECLAMATION COMMISSION
<input type="checkbox"/> SHORT TERM, FOR ONE PERMIT YEAR		
<input checked="" type="checkbox"/> LONG TERM, FOR PERIOD THROUGH DATE:		1/1/25
DESCRIPTION OF SITE PRIOR TO LAND RECLAMATION COMMISSION PERMITTING (BY APPLICANT OR PRIOR OPERATOR), INCLUDING SOIL, VEGETATION AND TOPOGRAPHY.		
<p><i>Area is primarily rolling hills covered with vegetation consisting of trees, shrubs, and grasses. According to the local county Soil Survey, the predominant soil classification in this area is Pits/Quarry. All available vegetation supporting material will be retained for reclamation purposes. Only a minimum amount, if any topsoil thus topsoil will not be segregated and stored separately.</i></p> <p><i>Total overburden (material above mineral) varies from 15' 60', including waste sandstones above the Kimmswick and Plattin limestones.</i></p>		
OPERATION PLAN - 10 CSR 40-10.020(2)(D)1.		
A. TOPSOIL		
AVERAGE DEPTH OF TOPSOIL, PRIOR TO LAND RECLAMATION COMMISSION PERMITTING		IS TOPSOIL TO BE SOLD OR DISCARDED OFFSITE?
Minimal < 6"		<input type="checkbox"/> YES OR <input checked="" type="checkbox"/> NO
DESCRIBE METHODS AND EQUIPMENT USED FOR TOPSOIL REMOVAL		
<p>Post 1990 Areas of Disturbance:</p> <p><i>All Topsoil (A) and Subsoil (B) material will be removed using scrapers, dozers, and/or other earth moving equipment as deemed necessary by permittee.</i></p> <p><i>Topsoil (A) and Subsoil (B) material may be placed over graded spoil/overburden from previous cut.</i></p> <p>OR</p> <p><i>Topsoil (A) and Subsoil (B) material may also be stockpiled for future reclamation.</i></p> <p><i>Topsoil (A) and Subsoil (B) removal operations will be conducted in such a manner as to minimize erosion</i></p> <p>Pre 1990 Areas of Disturbance:</p> <p><i>Topsoil regulations do not apply.</i></p>		
DESCRIBE METHODS AND EQUIPMENT USED FOR TOPSOIL STORAGE AND PROTECTION		
<p>Post 1990 Areas of Disturbance:</p> <p><i>Topsoil (A) and Subsoil (B) material that is to be stockpiled, will be placed by scrapers, dozers and/or other earth moving equipment as deemed necessary by permittee.</i></p> <p><i>Topsoil (A) and Subsoil (B) storage operations will be conducted in such a manner as to minimize erosion</i></p> <p>Pre 1990 Areas of Disturbance:</p> <p><i>Topsoil regulations do not apply.</i></p>		

B. SPOIL

DESCRIBE METHODS AND LOCATION OF SPOIL PLACEMENT AND DISPOSAL

Overburden removed from above the mineral deposit will be either returned to the previously mined areas of the pit or to other bonded areas.

Post 1990 Areas of Disturbance:

Overburden material will be sloped, as required by the regulations in place at time of original disturbance, prior to topsoil replacement.

Pre 1990 Areas of Disturbance:

Overburden material will be sloped as required by the regulations in place at time of original disturbance.

Slopes will generally be traversable by standard farm equipment depending upon final use.

Pre 1972 Areas of Disturbance (Pre-Law)

Areas designated as Pre 1972 are exempt from Land Reclamation Laws and Regulations.

C. ACID MATERIALS

DESCRIBE METHODS AND EQUIPMENT USED FOR HANDLING ACID MATERIALS (IF NONE ANTICIPATED, WRITE "NONE" BELOW)

Layer(s) of shale may be slightly acidic.

If acidic shale material is present, material will be covered by non-acidic overburden materials to a minimum depth of 2'.

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PIT INFORMATION (GIVE ALL DIMENSIONS IN FEET)

DESCRIBE LOCATION AND ORIENTATION OF PIT, IF NOT CLEAR ON SITE MAPS

Please see map(s)

YES

NO

☐☒

Will any excavation be at or within fifty feet (50') of the right-of-way of any public road?

☐☒

Will any highwall consisting of unconsolidated materials be left within fifty feet of the right-of-way of any public road? (NOTE: For unconsolidated materials left in place, a slope of no more than forty degrees may start near the right-of-way, and in no case may the excavation be closer to the right-of-way than fifty feet or twenty-five plus one and one-half (1-1/2) times the depth of unconsolidated material, whichever is greater, unless a variance is granted by the Commission.)

☐☒

Will any excavation start at or within fifty feet (50') of any property line?
(NOTE: If the answer is "yes", a safety barrier may be needed.)

A. REVEGETATION (Attach additional sheets, if needed)

REVEGETATION MIX #	PURPOSE OR LAND USE	B. SEEDING OR PLANTING TIME
1	Agricultural	March - June August - October

DESCRIBE METHODS AND EQUIPMENT TO BE USED FOR SEEDING OR PLANTING

Post 1990 Areas of Disturbance:

After Topsoil / Subsoil replacement and grading are complete, soil will be worked with appropriate equipment, using recommended practices, to establish a seed bed.

Pre 1990 Areas of Disturbance:

After Overburden replacement and grading are complete, soil will be worked with appropriate equipment, using recommended practices, to establish a seed bed.

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Seeding will be accomplished by using either the most appropriate methods and seed mixes recommended by the local soil regulatory agency (if available) or by using successful past experiences to ensure proper germination.

Seeding methods may include one or any combination of the following: Broadcast, Drilling, Hydroseeding

Field adjustments of both quantity and species variety may be necessary to ensure adequate vegetation.

Revegetation mixes will include one or more of the grasses and one or more of the legumes listed below:

Lime and fertilizer will be applied according to recommendations, based upon an analysis of soil texture and nutrients. Mulch will be applied to all slopes exceeding 5:1.

Cool Season Grasses			Legumes		
Seeded Species	Pounds/Acre		Seeded Species	Pounds/Acre	
Tall Fescue	12	PLS (min)	Alfalfa	10	PLS (min)
Ryegrass	10	PLS (min)	Red Clover	5	PLS (min)
Bromegrass	8	PLS (min)	Lespedeza	10	PLS (min)
Orchardgrass	5	PLS (min)	Crownvetch	10	PLS (min)
Timothy	4	PLS (min)			

PLS = Pure Live Seed (min) = Minimum application rate if used

REVEGETATION MIX #	PURPOSE OR LAND USE	B. SEEDING OR PLANTING TIME
2	Wildlife	March - June August - October

DESCRIBE METHODS AND EQUIPMENT TO BE USED FOR SEEDING OR PLANTING

Post 1990 Areas of Disturbance:

Where necessary, and after Topsoil / Subsoil replacement and grading are complete, soil will be worked with appropriate equipment, using recommended practices, to establish a seed bed.

Pre 1990 Areas of Disturbance:

Where necessary, and after Overburden replacement and grading are complete, soil will be worked with appropriate equipment, using recommended practices, to establish a seed bed.

Seeding will be accomplished by either using the most appropriate methods and seed mixes recommended by the local soil regulatory agency (if available) or by using successful past experiences to ensure proper germination.

Seeding methods may include one or any combination of the following: Broadcast, Drilling, Hydroseeding

Field adjustments of both quantity and species variety may be necessary to ensure adequate vegetation.

Revegetation mixes will include one or more of the grasses and one or more of the legumes listed below:

Lime and fertilizer will be applied according to recommendations, based upon an analysis of soil texture and nutrients. Mulch will be applied to all slopes exceeding 5:1.

Warm Season Grasses			Legumes		
Seeded Species	Pounds/Acre		Seeded Species	Pounds/Acre	
Switchgrass	4	PLS (min)	Alfalfa	10	PLS (min)
Big Bluestem	7	PLS (min)	Red Clover	5	PLS (min)
Indian Grass	7	PLS (min)	Lespedeza	10	PLS (min)

PLS = Pure Live Seed (min) = Minimum application rate if used

ATTACH ADDITIONAL SHEETS FOR ADDITIONAL SEED MIXES.

A. REVEGETATION (Attach additional sheets, if needed)

REVEGETATION MIX #	PURPOSE OR LAND USE	B. SEEDING OR PLANTING TIME
3	Water Impoundments	March - June August - October

DESCRIBE METHODS AND EQUIPMENT TO BE USED FOR SEEDING OR PLANTING

Post 1990 Areas of Disturbance:

After Topsoil / Subsoil replacement and grading are complete, soil will be worked with appropriate equipment, using recommended practices, to establish a seed bed.

Pre 1990 Areas of Disturbance:

After Overburden replacement and grading are complete, soil will be worked with appropriate equipment, using recommended practices, to establish a seed bed.

Seeding will be accomplished by using either the most appropriate methods and seed mixes recommended by the local soil regulatory agency (if available) or by using successful past experiences to ensure proper germination.

Seeding methods may include one or any combination of the following: Broadcast, Drilling, Hydroseeding

Field adjustments of both quantity and species variety may be necessary to ensure adequate vegetation.

Revegetation mixes will include one or more of the grasses and one or more of the legumes listed below:

Lime and fertilizer will be applied according to recommendations, based upon an analysis of soil texture and nutrients. Mulch will be applied to all slopes exceeding 5:1.

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Cool Season Grasses			Warm Season Grasses			Legumes		
Seeded Species	Pounds/Acre		Seeded Species	Pounds/Acre		Seeded Species	Pounds/Acre	
Tall Fescue	24	PLS (min)	Switchgrass	8	PLS (min)	Alfalfa	10	PLS (min)
Ryegrass	20	PLS (min)	Big Bluestem	14	PLS (min)	Red Clover	5	PLS (min)
Bromegrass	16	PLS (min)	Indian Grass	14	PLS (min)	Lespedeza	10	PLS (min)
Orchardgrass	5	PLS (min)						
Timothy	4	PLS (min)						

PLS = Pure Live Seed (min) = Minimum application rate if used

REVEGETATION MIX #	PURPOSE OR LAND USE	B. SEEDING OR PLANTING TIME
4	Industrial	March - June August - October

DESCRIBE METHODS AND EQUIPMENT TO BE USED FOR SEEDING OR PLANTING

Post 1990 Areas of Disturbance:

After Topsoil / Subsoil replacement and grading are complete, soil will be worked with appropriate equipment, using recommended practices, to establish a seed bed.

Pre 1990 Areas of Disturbance:

After Overburden replacement and grading are complete, soil will be worked with appropriate equipment, using recommended practices, to establish a seed bed.

Seeding will be accomplished by using either the most appropriate methods and seed mixes recommended by the local soil regulatory agency (if available) or by using successful past experiences to ensure proper germination.

Seeding methods may include one or all of the following: Broadcast, Drilling, Hydroseeding

Field adjustments of both quantity and species variety may be necessary to ensure adequate vegetation.

Revegetation mixes will include one or more of the grasses and one or more of the legumes listed below:

Lime and fertilizer will be applied according to recommendations, based upon an analysis of soil texture and nutrients. Mulch will be applied to all slopes exceeding 5:1.

Cool Season Grasses			Legumes		
Seeded Species	Pounds/Acre		Seeded Species	Pounds/Acre	
Tall Fescue	12	PLS (min)	Alfalfa	20	PLS (min)
Ryegrass	10	PLS (min)	Red Clover	10	PLS (min)
Bromegrass	8	PLS (min)	Lespedeza	20	PLS (min)
Orchardgrass	5	PLS (min)	Crownvetch	20	PLS (min)
Timothy	4	PLS (min)			

PLS = Pure Live Seed (min) = Minimum application rate if used

ATTACH ADDITIONAL SHEETS FOR ADDITIONAL SEED MIXES.

B. GRADING

MMA- Barnhart Quarry

DESCRIBE PROPOSED RECLAIMED TOPOGRAPHY, INCLUDING SLOPES

Agricultural Use:

All reclaimed areas will be graded so as to be traversable by standard farm equipment.
All reclaimed areas will be sown with appropriate revegetation mix and may include volunteer indigenous species which would support the intended use.

Wildlife Use:

All reclaimed areas will have a gradient suitable for wildlife.
Where necessary, reclaimed areas will be sown with appropriate revegetation mix and may include volunteer indigenous species which would support the intended use.

Water Impoundment:

All reclaimed areas will meet guidelines/regulations in effect at time of reclamation and established by the appropriate regulatory agencies.
Where necessary, reclaimed areas will be sown with appropriate revegetation mix and may include volunteer indigenous species which would support the intended use.

Industrial Use:

All reclaimed areas will be neat, orderly, and free of mining activity debris.
Where necessary, reclaimed areas will be sown with appropriate revegetation mix and may include volunteer indigenous species which would support the intended use.

Note: All final reclamation uses to meet guidelines/regulations in place at time of original disturbance.

Note: Final Reclamation Uses, size, location, and configuration can be influenced by a variety of factors including, but not limited to: depth of mineral extraction, variations in quality of mineral being mined, and/or market demands.

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C. DESCRIBE THE GENERAL SEQUENCE AND TIMING OF THE FOLLOWING ACTIVITIES**GRADING**

Grading to be completed after mineral extraction and within one year of permit expiration.
Grading variances may be requested for any areas requiring additional time.

REPLACEMENT OF TOPSOIL

Topsoil and Subsoil replacement to be completed after grading and within one year of permit expiration
Topsoil variances may be requested for any areas requiring additional time.

REVEGETATION

Revegetation to be completed after grading and/or topsoil/subsoil replacement and within two years of permit expiration
Revegetation variances may be requested for any areas requiring additional time.

AVERAGE DEPTH OF REPLACED TOPSOIL (INCHES)

Post 1990 Areas of Disturbance = All vegetation supporting material will be used for revegetation

D. USE OF LAND WHEN RECLAIMED

Estimate acreage of each land use below, after reclamation

ESTIMATED ACRES

Wildlife (forest or other habitat with livestock excluded)

Note: Final Use areas outlined on Mine Plan Map are approximate in size, location and configuration.
Actual Final Use, total acreage, location and configuration to be determined at time of final reclamation.

10 (approx.)

Agricultural (pasture, cropland, and horticultural)

Note: Final Use areas outlined on Mine Plan Map are approximate in size, location and configuration.
Actual Final Use, total acreage, location and configuration to be determined at time of final reclamation.

30 (approx.)

Development (residential, industrial, and recreational)

Note: Final Use areas outlined on Mine Plan Map are approximate in size, location and configuration.
Actual Final Use, total acreage, location and configuration to be determined at time of final reclamation.

2 (approx.)

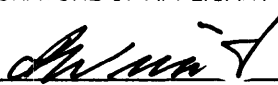
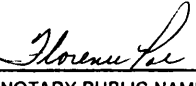

Water impoundments (for wildlife, agricultural, or development)

Note: Final Use areas outlined on Mine Plan Map are approximate in size, location and configuration.
Actual Final Use, total acreage, location and configuration to be determined at time of final reclamation.

46 (approx.)

By my signature, I attest to the following:

1. All statements made on this Mine Plan Form are correct, complete, and true, to the best of my knowledge.
2. I or the company I am authorized to represent intend(s) to mine in accordance with this Mine Plan Form, and in accordance with the Missouri Land Reclamation Act, Sections 444.760 through 444.789, RSMo (Supp. 1990), and all rules, regulations, orders, decisions and permits of the Missouri Land Reclamation Commission pertaining to my company's surface mining operations.
3. I have obtained the approval of all landowner's for all proposed post-reclamation land uses.
4. I have a valid agreement with all landowners which gives me the right to grant access to the Director of the Missouri Land Reclamation Commission and his authorized representatives, and I grant such access, and further where I have no such right, I have attached signed affidavits from the landowners, granting such access.

SIGNATURE OF APPLICANT 		TITLE Executive Vice President		DATE 1/4/99	
NOTARY PUBLIC EMBOSSEY SEAL	STATE <i>North Carolina</i>		COUNTY (OR CITY OF ST. LOUIS) USE RUBBER STAMP IN CLEAR AREA BELOW		
	SUBSCRIBED AND SWORN BEFORE ME, THIS <i>4th</i> DAY OF <i>January</i> 19 <i>99</i>				
	NOTARY PUBLIC SIGNATURE 	MY COMMISSION EXPIRES <i>10/2/2001</i>			
	NOTARY PUBLIC NAME (TYPED OR PRINTED) <i>Florence Poe</i>				
APPROVED BY (DIRECTOR'S REPRESENTATIVE) 			DATE APPROVED <i>1-4-99</i>		PERMIT NUMBER <i>0067</i>



MISSOURI DEPARTMENT OF NATURAL RESOURCES
LAND RECLAMATION COMMISSION
PERMIT TRANSFER

RECEIVED
DEC 10 1998
MISSOURI LAND RECLAMATION COMMISSION

P.O. BOX 176
JEFFERSON CITY, MO 65102

PERMIT TRANSFER (FOR TRANSFERRING PERMITTED ACRES FROM ONE RECLAMATION PERMIT TO ANOTHER, WITH NO CHANGES IN MINE PLAN OR ACREAGE)

NAME OF CURRENT PERMIT HOLDER Barnhart Limestone, Inc.		PERMIT NUMBER 0600
SITE(S) Jefferson County S-32, T 42N, R6E		
ADDRESS P. O. Box 459		
CITY Barnhart	STATE Mo.	ZIP CODE 63012
CONTACT PERSON Louis Griesemer		PHONE NUMBER (314) 464-3364

TO BE COMPLETED BY THE CURRENT PERMIT HOLDER

List all reclamation bonds which are held on this permit

BONDING COMPANY	BOND NUMBER	BOND DATE	AMOUNT
Nations Bank	006-036-2289551	1-29-98	\$19,500

TO BE COMPLETED BY PROPOSED SUCCESSOR

NAME OF PROPOSED SUCCESSOR Martin Marietta Materials, Inc.		
ADDRESS 2710 Wycliff Road		
CITY Raleigh	STATE NC	ZIP CODE 27607
CONTACT PERSON W. Thomas Sellers, Jr.		TELEPHONE NUMBER (919) 781-4550

List any other Land Reclamation Commission Permits currently or previously held by successor or companies owned or partially controlled by successor.

NAME OF COMPANY	PERMIT NUMBER	MINERAL
Martin Marietta Materials, Inc.	0153	Limestone
Martin Marietta Materials, Inc.	0067	Limestone

NOTE: The successor company must provide proof of bond replacement and an affidavit of publication for the required public notice.

230

88 ACRES

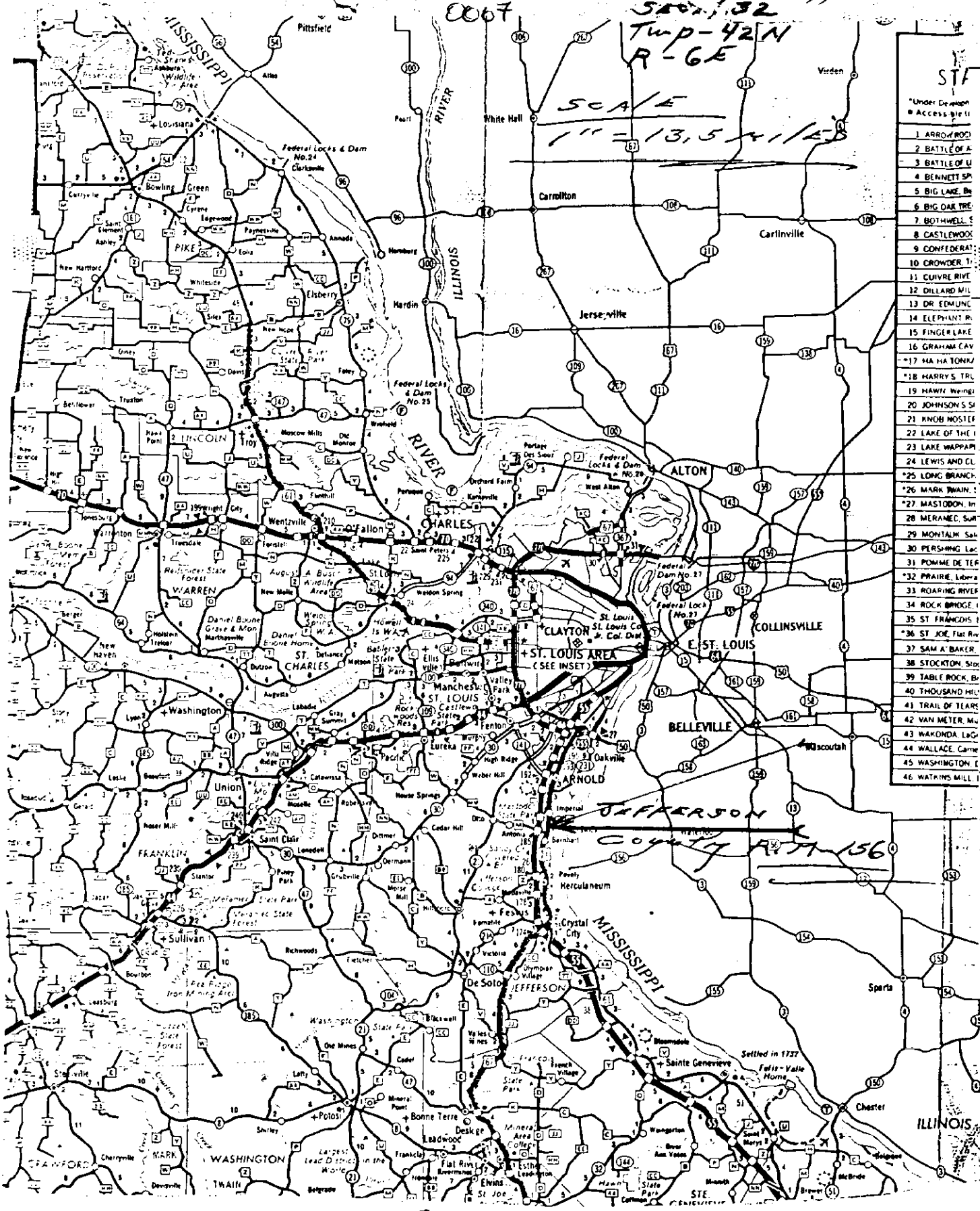
1

WEST LAKE CO. BARNHART QUARRY - Jan. 17 85

MARTIN MACETTA
0067

Sec. 32
Twp-42N
R-6E

SCALE
1" = 13.5 miles



Jan 17 85 - WEST LAKE CO. - BARNHART QUARRY
SCALE - 1" = 13.5 miles -
COUNTY - JEFFERSON - SEC. 32 TWP-42N R-6E